1:Nimuendajú E-5 (1941-1942) 1952
SQ20 Tucuna SQ20

two stones; the technique of making fire by the friction of two sticks was unknown.[1] The Tukuna described to me, also, how the ancients struck two stones (tɔ'a-ži[ⁿ'ń) together, catching the sparks in tinder of *taracuá*, a substance found in the nests of *tracuá* ants.

Some, however, still remember well the fire drill used for this purpose, which was made of white *envira* wood. The drill was a rod about sixty centimeters long, or a shorter piece enclosed in a stem of *canna brava*. The hearth was a small board of the same wood, which rested on two small sticks. The drill, rotated between the palms of the hands, pierced the little board, and the glowing powder fell through the hole upon the tinder beneath. This apparatus, say the Tukuna, was invented by the culture hero dyɔi'.

Today, a wing of a parrot, forest turkey, buzzard, or royal hawk serves as a fire fan; the shaft is sometimes wrapped in a piece of cloth and covered with wax. Among the Tukuna I have never seen any fire fans of vegetable material, but the Neobraziliana and the Kokáma use them exclusively.

All the members of the family capable of working in the garden patch always bring kindling wood when they return. If, in spite of this, there is no kindling, special trips are made for it.

Fire tongs are unknown, but once I came across a sort of fork, formed of three branches stemming from a single point, which served to arrange the coals and to place upon them a piece of meat for roasting. The fork was especially made for this purpose and had already been in use for some time.

The platform supported on four stakes is never found in the kitchen where things are laid on the ground or are hung from wooden N-shaped hooks thrust into the roof thatch. These hooks sometimes end in a bird's head and are called vẹ'k|'ča (see p. 142). Some of the kitchens, however, have a small platform suspended from the roof, on which dried meat, bananas, and other foods are stored.

Jugs, bowls, and plates have their places on an outside platform (giráu), at the side of the shed. The jars (l.g., *igaçabas*), even when empty, are kept in the kitchen. They are turned upside down when not in use, and it is customary to store fruits, and so forth, under them in order to keep the food away from domestic animals and bats.

Although the Tukuna habitually obtain their drinking and cooking water from a clean spot, such as the center of the current, it bothers them little if the filled containers remain for hours exposed to the rays of the burning sun. They drink little water, and one often finds the containers empty, but no one seems to feel the lack.

Utensils and containers.—All the Tukuna gourds, *cuias*, are made of shell of the gourd (*cuieira*) and are generally covered on the inner surface, or in a few rare instances on the outer surface as well, with a black lacquer of *cumatê* juice (fig. 2, *a*, *b*). Sometimes the outer surface is decorated with an indelible red paint, *urucú*, in a design of palm trees and animals. There are large hemispherical gourds, smaller elliptical ones, and little, narrow, long ones.

In the kitchen one always finds a number of wooden ladles and spoons, sometimes of a respectable size containing almost a half liter; these represent a post-Columbian

[1] Tessmann, p. 561.

1:Nimuendajú E-5 (1941-1942) 1952
SQ20 Tucuna SQ20

415
531

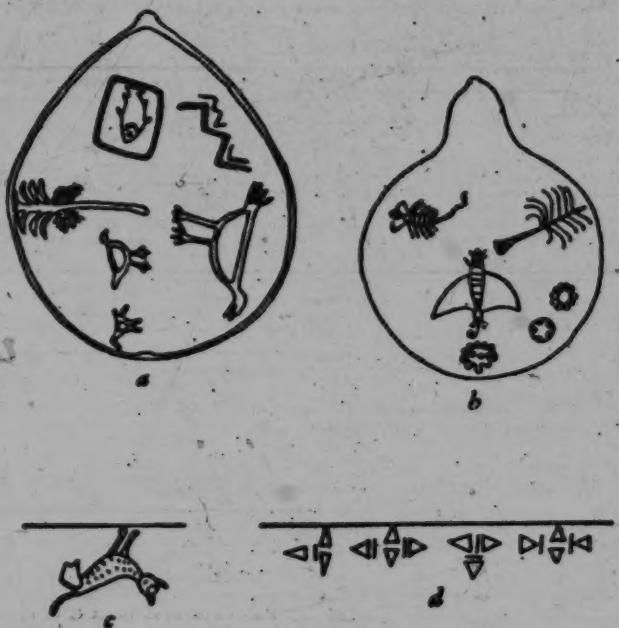

Fig. 2. Gourd decoration. *a*, *b*. Interior, red design on black background. *c*, *d*. Exterior, engraved edge patterns.

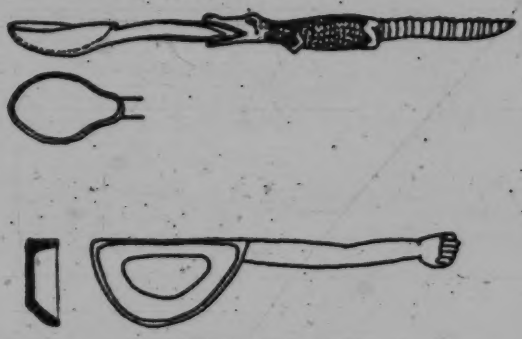

Fig. 3. Wooden spoons. × ⅛.

influence, as their Portuguese name, *colhér* (T., kuyo'ra), proves. The artistic impulse of the Tukuna has not, however, been limited to merely copying the European models; they frequently give these utensils fantastic and original shapes. There are double spoons of different sizes, with a bowl at each end of the handle; others with asymmetric, semicircular bowls; still others with the handle carved in the shape of an alligator, and so on. These spoons are also often painted with cumatê lacquer (fig. 3). There are always some spatulas for stirring the contents of the [177] 412

1:Nimuendajú E-5 (1941-1942) 1952
SQ20 Tucuna SQ20

412 pots. Fermented drinks are often stirred with a shoulder blade of the manatee, *peixe-boi*. For *mingau*, a sweetened gruel, there is always a little swizzle stick made of arrow cane with a small cross of sticks lashed transversely to the end of the shaft.

415 The Tukuna still use three types of "primitive" containers. One consists of the outer shell of the *sacupaia* nut in its original form. Another is made from the spatulate end of the frondstalk of the *anajá* palm, which has the shape of an oval basin with noticeably raised edges; nothing is done to this either, to prepare it for use. A third is made from the leaf sheath of the *açahy* palm,[a] which is folded into the shape of a small, flat, rectangular box, about a half meter long, the folds being secured with two small, wooden spits.

412
.501

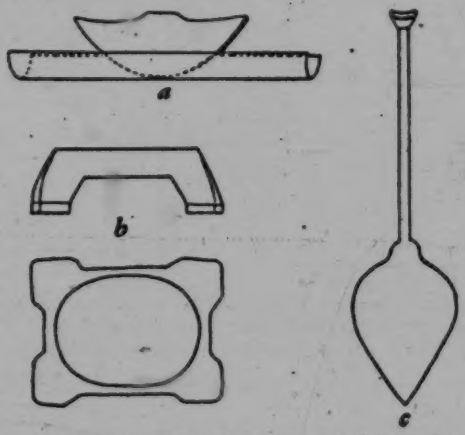

Fig. 4. Wooden objects. *a*. Quiricá or rocking board, × 1/30. *b*. Small bench, × 1/10. *c*. Paddle, × 1/20.

417 By the side of the kitchen fire one invariably sees a portable rack, *moquem*, for
252 drying meat, made of three poles, each 1.5 m. long, tied together at the upper ends so as to form a tripod (kɔ'ya-čik|ra', jaw of alligator), between the legs of which the grill is tied. Any meat or fish to be dried is placed on this grill, which is then set over the fire or, if this is occupied, any handy kindling is piled beneath the tripod. Only if there is a large quantity of game or fish is a fixed grill set up, in which case it rests upon four posts and two crossbeams (na:'/tam|ᵉ).

The spit is rarely used, and then only to roast bits of small game. In order to handle fish easily on the grill the Tukuna press it between two prongs of a flat strip of wood, something like a pair of pincers. The prongs are passed through the fish's mouth and gills, and the ends are tied together just forward of the tail. Frogs, toads, Coleoptera larvae, shrimp, and small fry are placed on the grill wrapped in leaves, forming small packages tied at both ends.

412 Contrary to what Tessmann says,[b] the Tukuna do not use the mortar, though it does appear in their legends as an object used by demons. For it the Tukuna sub-
[773] stitute a rocking-board (tau/ta'-činᵉçᵉ; l.g., *quiricá*) of half-moon shape made

[a] *Euterpe edulis*; also, *assahy*, *palmito doce*. The heart of this palm is eaten.
[b] Tessmann, *loc. cit.*

1:Nimuendajú E-5 (1941-1942) 1952
SQ20 Tucuna SQ20

of a heavy wood, *cumarú;* it is two fingers thick and as much as 80 cm. long (fig. 4, *a*), and with it they crush and mill the material in a long semicylindrical trough (tau/ta'), sometimes open at both ends. In this hod they often work with a short wooden pestle; I saw one which ended at the top in a sculptured human head.

The cook shed is also the place where they make dry manioc flour, *farinha de mandioca*, which is probably the Tukuna product most desired by the Neobrazilians today. Formerly, the Tukuna did not know how to use it, but for dry flour substituted *beijú*, a thin flat cake of fermented manioc dough baked on a clay slab. They also had a flour made of maize cracked by the heat of fire,[10] which went by the name of a/tẽ'ẽ and was eaten with bananas.

The Neobrazilians probably taught the Tukuna how to make manioc dry flour, since so many of the Tukuna terms relating to it are Neobrazilian, for instance, the name of the product, ʊ:'i (l.g., *uí*), and of the utensils used in its manufacture: e.g., yapu'na, oven (l.g., *yapúna*), te'piti, press (l.g., *tipity*), kuču, hod for the dough (P., *cocho*).

I do not know what shape the earlier grater had; today it is invariably made of a punctured sheet of metal. There are still small graters which are made from the aerial root of the *paxiubinha*, and others made from the bony part of the tongue of the pirarucú, but they are no good for grating manioc roots; they are useful only in the preparation of certain medicines.

Like any other load, the manioc roots are brought from the garden patch in large conical baskets (pl. 4). These are made by the men—who, however, never use them—in an open-mesh technique, usually of split *cipó*, more rarely of uarumã stems. The Tukuna say that they learned to make this type of basket (vo'tura; Tupi, *waturá*) from the Omágua, who then made war against the Tukuna for copying an Omágua article. Formerly the Tukuna baskets were cylindrical, with a square bottom. All are carried with a tumpline of envira. Baskets of both types are in use today, although the first type predominates.

Aside from these carrying baskets, the Tukuna also have a large woven bag, ñẽ'/rį, closed by a drawstring passed through the mesh row of the opening; it often has a tumpline woven of the same material (pl. 7, *e*). This bag, *puçá*, with the mouth held open by a hoop of cipó or of elastic wood, also serves as a dip net. It is mentioned in the legend of the origin of culture heroes as one of two articles typically used by women and is one of the elements which the Tukuna share with the cultures of eastern Brazil and the Chaco.

Formerly, the Tukuna peeled manioc roots with the edge of a large bivalve shell, koru, common along the Solimões. This is used even today to scrape pineapples for the preparation of a cooling drink.

For soaking bundles of manioc roots in plain water the Tukuna invariably use an old canoe near the entrance to the house. The squeezed pulp from the press (tipity) is placed in a hod, open at both ends and set slightly inclined on two sawhorses. Nowadays, the Tukuna make "dry" farinha just as much as "wet"; they rarely bother with tapioca. The pulp is strained through square, large-meshed sieves made of strips of bamboo, *taboca*, or uarumã (ʊ:'i-čim|/|ⁿn).

For other purposes there is a small fine-meshed sieve, va'ira-čin|/|ⁿn (*vóira*,

[10] The word for popcorn, *pipocas*, was not used here.—TRANS.

1:Nimuendajú E-5 (1941-1942) 1952
SQ20 Tucuna SQ20

412 assai). These sieves are identical with those of the Neobrazilians and are probably borrowed from them. The original type of Tukuna sieve is perhaps the round one found occasionally even today; it fits better in the mouths of the jars used in straining the pulp from which beverages are made, the original purpose of these sieves.

The paddle for stirring manioc flour in the oven is the same as that used by the [171] Neobrazilians—a small board attached to a long stick, if it is not just some old canoe paddle. For turning cassava (*mandioca*) cakes in the oven the Tukuna use a small board shaped like a segment of a circle, almost invariably a broken section [285] of an old canoe-paddle blade. Flour is kept in cylindrical openwork baskets woven [251] of uarumã in an open-mesh technique, lined with leaves that also seal the top, and tied by a plait of cipó. This is the common form also used by the Neobrazilians.

In the kitchen there are always a number of small four-legged benches, ùU/ma'vᴱ 352 (fig. 4, *b*), rectangular or oval in shape, each carved entirely from a single piece of wood. Sometimes they are made in the form of a tortoise, *jaboti* (*Emys tabulata*) (pl. 9, *c*), and they are always made with some cunning. They are never more than [362] ten centimeters high. These benches are used exclusively by men while partaking of refreshments, whereas the women sit on the floor.

Cleanliness.—The house as well as the kitchen is usually clean, since both are 356 swept out at least once daily with a broom made of the leaf ribs of small *tucumã* leaves left over from the fibers used in making thread. The Tukuna do not tolerate a stink in the house or in the kitchen. They immediately remove excreta of domestic [412] animals or of small children, including the soiled portion of the earth, with the [231] point of a short, broad blade.[11] This scrupulousness is the main reason why these Indians have a distaste for raising chickens and never keep pigs.

Neither dog fleas nor chiggers (*Pulex penetrans; bicho de pé*) become annoying [136] in Tukuna houses, but cockroaches, crickets, and tracuá ants are most disagreeable. These last, above all, immediately swarm over any food not on the grill while the fire is burning and invade baskets and trunks with irritating persistency. The Indian chief Calixto daueru'kị fought this plague in Igarapézinho by thrusting thick reeds, open at one end, into the house thatch. In a short time the insects would build their nests in these reeds and, when the reeds were filled, he would shake them out over the fire and again insert the reeds in the thatch.

Communication between Settlements

487 Formerly, communication between isolated settlements was mainly by land, since the Tukuna, in contrast to the Omágua, were foot Indians, not canoe men. All the igarapés (tributaries of the left bank of the Solimões) inhabited by these Indians were connected by trails; likewise the different houses along a particular igarapé. Castelnau mentions these paths,[12] which connected the Tukuna habitations of the interior from Caldeirão (Belém) to Tabatinga and Loreto. With the development of navigation many of these trails were abandoned, although some are used even today.

501 Originally, the Tukuna practiced little navigation, being isolated in their jungle 177 centers on solid ground by the Omágua, their superiors in warfare. They had only

[11] *Terçado*, lit., a short, broad sword; probably the machete or *facão*.—Trans.
[12] Castelnau, p. 50.

1:Nimuendajú E-5 (1941-1942) 1952
SQ20 Tucuna SQ20

III. SUBSISTENCE

Agriculture

241 [226] Agriculture and fishing are the principal sources of Tukuna economy. If forced to, the Tukuna will go for some time without collecting wild fruits or hunting; but the complete lack of garden products and fish simply spells misery to them.

[462] [476] [462] The garden patch, cleared and burned out of the virgin jungle, is as a rule made exclusively by the men, often in a communal work party, *uajurí;* but some widows, without masculine aid, clear the land and plant in the *capoeira* or secondary jungle growth. Both sexes pile up the rubbish and burn it, whereas planting is carried out exclusively by women and girls. The original instrument for felling trees was [412] the stone ax, whose appearance no one now remembers, but which, according to legend, the culture hero dyoi' stole from the demon toi"ta [tu]"'ta] (see page 131).

The four species of major importance for the Tukuna are bitter manioc, *mandioca brava* (*Manihot utilissima*), sweet manioc, *macaxera* (*M. aipi*),[1] maize, and yam, *cará* (*Dioscorea* sp.).[2] Lacking any one of these four, the Tukuna have a bad time of it, whereas the absence of other edible tubers, such as the sweet potato, and of other plants like sugar cane, pineapple, peanut (*manduví*),[3] and so on, affects them very little.

[773] According to legend, a solitary old woman discovered both the tree which furnished macaxera-like fruits and the art of making manioc flat cakes, beijús. On learning the secret, the men felled the tree and ate up everything; only Deer kept shoots and seeds in a basket (vatu') of which the culture hero dyoi' later robbed him (see p. 131). For this reason the Tukuna refer to a cultivated plant as a pre-Columbian possession by saying that "it first came in Deer's vatu'."

[177] Formerly, only sweet manioc was known to them; apparently bitter manioc and the process of making manioc flour were introduced by the Neobrazilians.

[412] In planting either variety of manioc, a woman goes ahead, armed with a long, heavy, rounded stake of wood with a sharpened point (about 140 cm. by 7 cm.), with which she makes holes in the ground, a female companion trailing behind to insert the plant slips into the prepared soil. This stake (paye'[ʷ]ú), when not in use, is kept under water near the entrance to the house or clearing, so that it will not dry out and lose weight. It is removed and dried off only on the eve of planting.

243 [773] Maize was not "in Deer's vatu'" but, according to legend, was given to the Indians by aria'na, a great coquette of the upper world, who brought it with her from one of the lower worlds, where she was once forced to sojourn against her will. (See p. 112.)

[462] The planting of maize, done preferably by men, is accompanied by a certain ceremoniousness that is not observed for any of the other plants. The kernels are placed first of all in a gourd of water. The planter then takes a little of this water in his mouth and sprays it over the kernels in order to make them more savory.

243 784 Until the plants reach a certain height he must submit to rigorous taboos. He cannot go near the fire, or eat or even touch the following fish: pirarucú (*Arapaima*

[1] Commonly known in Brazil as *aipi*.—Trans.
[2] A tuber also known as *inhame*.—Trans.
[3] *Arachis hypogaea;* commonly known as *amendoim;* T., tə̃'ti].

2: Nimuendajú E-5 (1941-1942) 1948
SQ20 Tucuna SQ20

CULTURE

SUBSISTENCE ACTIVITIES

241 **Farming.**—The main *Tucuna* crops are bitter manioc, sweet manioc (macaxera), cara (*Dioscorea*), and maize. The last is planted with some ceremony. There are also at least three species of edible tubers which are not used by civilized people.

226 227 **Fishing and hunting.**—Fish, of great importance to the *Tucuna*, are taken with four- to nine-pronged javelins, arrows, harpoon arrows, baskets, weirs, traps, and a drug made of timbó. The Indians fish almost daily from childhood. On the Solimões, they are expert fishers of pirarucú, an important article of commerce.

224 177 411 Hunting today is unimportant, since game has been depleted to fill the demand for hides. The *Tucuna* now use firearms, but formerly employed the bow and arrow, spear, and blowgun. They also use pitfalls and several types of snares and traps. The blowgun, once the principal weapon, is disappearing.

222 262 [245] **Gathering.**—The wild burity, bacaba, patauá, and açahy palms are of great economic value. Some *Tucuna* plant Brazil nut trees near their houses. They eat certain frogs, Coleoptera larvae, and female red ants at hiving time. They like wild honey but keep no bees.

231 **Domesticated animals.**—The *Tucuna* raise a few chickens, but do not want hogs or other domestic animals because they dirty the premises. They keep young wild mammals and birds uncaged.

412 252 [177] [434] **Food preparation.**—Instead of a mortar, the *Tucuna* use a trough with a half-moon-shaped rocker of thick and heavy wood.

The making of manioc flour, introduced by the Neo-Brazilians, became one of the principal sources of income among the *Tucuna*.

HOUSES

342 The old houses had a small rectangular central portion with a short ridge pole mounted on props. Each end was semicircular, so that the ground plan was oval or nearly round. The walls were of a man's height, and were made of boards of paxiuba or of straw. The house could be sealed tight against mosquitoes. Families occupied the lateral corridors, the central space being reserved for ceremonies. All houses were spacious and well built.

177 342 352 513 The introduction of mosquito nets made house walls unnecessary. People slept on bunks along the walls, covered with mosquito nets, instead of in hammocks. Many houses were built without the semicircular extremities but with a longer central part, being like an open rectangular ranch house with a ridge pole. When the tribe occupied the flood plains of the shores and islands, they built houses on piles.

2: Nimuendajú E-5 (1941-1942) 1948
SQ20 Tucuna SQ20

Each residence has a proper name, given by the owner at a special feast. Houses are usually clean. 552 356

Household furniture.—Hammocks are made by a netlike technique of tucum thread of different colors; they are now used only for daytime resting. Clothes are kept in large baskets. 513 286

On the struts and rafters of the house one can often see remnants of the paraphernalia of feasts: masks, turury fringes, drums, and dance sticks. Ears of maize hang from the frame of the house or are piled in the loft. 352

The *Tucuna* never build a fire or eat in the dwelling. The kitchen is always a small separate house. Fire was formerly produced by drilling a horizontal piece of wood, which was placed over two cross pieces. There is, however, a tradition that even in old times they made fire by striking two stones. [343] 372

Fire fans are made exclusively of large bird wings. [412]

The *Tucuna* have plenty of small four-legged stools, either rectangular or oval, made from a single piece of wood, sometimes elaborately carved in the shape of a chelonian or batrachian. 352 532

TRANSPORTATION

Formerly, the *Tucuna* traveled largely on land, although on the small streams they used small primitive canoes made of paxiuba palm. From the *Omagua* they learned to make "ubá" type dugout canoes, and from the Neo-Brazilians to make "casco" type dugouts which were widened by heating them over a fire. These are sometimes provided with round shields (rodellas) and gunwales. *Tucuna* canoes are so well made that civilized people seek them. Paddles have crutch handles and a round blade with a large point. The blade and the crosspiece on the end of the handle, but not the handle, are invariably painted black. 501 [177]

DRESS AND ORNAMENTATION

Formerly, both sexes trimmed their hair slightly over the brows, and used a comb made of twigs held between two parallel sticks. 302

Both sexes used to pierce their ear lobes; only women do so now. Through the hole they usually wore little plates of white wood; on feast days they inserted small rods with feathers on the front end, from which a small metal plate hung. Women's plates were triangular, men's moon-shaped. Long ago they pierced the nasal septum, through which they had put a little rod of *Gynerium*. They also used to tattoo the face, which at one time may have indicated clans. There are still recollections of circumcision of girls, but not of men, as described by Father Noronha in 1768. 304 301 [174] [114]

653333—47—48